

## REMARKS

Claims 1, 2, 5-8, 10 and 11 are submitted for reconsideration without amendment in the light of the following remarks and identified authorities.

The office action states:

Claims 1-2, 5-6, 8 and 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Bose et al. ("Bose") (US Patent 4,628,528).

Regarding Claim 1, Bose discloses an acoustic waveguide having an open end and an interior (Fig. 8, opening 42); a first acoustic driver connected to said acoustic waveguide having a first radiating surface and a second radiating surface (one of the drivers 41 radiating sound waves into air and waveguide), constructed and arranged so that said first radiating surface radiates sound waves into free air and said second radiating surface radiates sound waves into said acoustic waveguide so that sound waves are radiated at said open end (42) into free air that would ordinarily oppose the radiation from said first surface at a dip frequency (Fig 7, dip frequency); and a source of opposing sound waves in said acoustic waveguide for opposing a predetermined spectral component corresponding to said dip frequency of said sound waves radiated into said acoustic waveguide to oppose the acoustic radiation of said predetermined spectral component from said acoustic waveguide (another one of drivers 41 that is generating a source of opposite sound waves) so that the combined radiation into free air from said first radiating surface and said open end is free from appreciable reduction in radiation at said dip frequency (the null at the dip frequency being reduced would have produced appreciable reduction in sound wave radiation).

Regarding Claim 2, Bose further discloses an acoustic port coupling said interior with free air (42).

Regarding Claim 5, Bose further discloses said source or opposing sound waves comprises a second acoustic driver arranged and constructed to radiate sound waves into said acoustic waveguide (drivers 41).

Regarding Claim 6, Bose further discloses an acoustic port, coupling said interior with free air (42).

Regarding Claim 8, Bose further discloses predetermined spectral component comprises a dip frequency at which said waveguide system produces an acoustic null, absent said source of opposing sound waves (Fig. 7).

Regarding Claim 10, Bose further discloses said source or opposing sound waves comprises a second acoustic driver arranged and constructed to radiate sound waves into said acoustic waveguide (drivers 41).

Regarding Claim 11, Bose discloses an acoustic waveguide (Fig. 8) having an open end (42) and a closed end (drivers 41) and further having an effective length (see col. 3, line 64-col. 4, line 35); an acoustic driver having a first radiating surface constructed and arranged to radiate sound waves into free air and a second radiating surface for radiating sound waves into said waveguide so that sound waves are radiated at said open end into free air that would ordinarily oppose the radiation from said first surface at a dip frequency (one of driver 41 in Fig. 8, and see also Fig. 7), a source of opposing sound waves (another one of drivers 41 that is generating a source of opposite sound waves) positioned in said acoustic waveguide so that there is an acoustic null at said open end at said dip frequency so that the combined radiation into free air from said first radiating surface and said open end is free from appreciable reduction in radiation at said dip frequency (the null at the dip frequency being reduced would have produced appreciable reduction in sound wave radiation). P.p. 2-4.

This ground of rejection is respectfully traversed. We rely on the authorities set forth on pages 9 and 10 of the response transmitted June 2, 2004.

In order to support a rejection under Section 102, the single reference must disclose each and every limitation in the rejected claims arranged as in a rejected claim. The reference is a comprehensive disclosure of the speaker system embodied in the commercially available ACOUSTIC WAVE music system, ACOUSTIC WAVE CANNON loudspeaker system, WAVE radio and WAVE music system for which the Intellectual Property Owners awarded joint inventors Dr. Bose and Dr. Short, holders of six MIT degrees, inventors of the year. Yet, there is

not one paragraph, sentence, clause, phrase or word disclosing at least the limitation of "a source of opposing sound waves in said acoustic wave guide for opposing a predetermined spectral component corresponding to the dip frequency that occurs with a first acoustic driver connected to the acoustic wave guide that has a first radiating surface and a second radiating surface constructed and arranged so that the first radiating surface radiates sound waves into free air and the second radiating surface radiates sound waves into the acoustic wave guide so that sound waves are radiated at the open end into free air that would ordinarily oppose the radiation from the first surface at the dip frequency" as called for by all the rejected claims.

The office action only repeats the claim language, refers to FIG. 8 that illustrates a multiplicity of drivers at one end of a waveguide, states that FIG. 7 discloses a dip frequency without showing where FIG. 7 discloses a dip frequency and claims that another one of drivers 41 generates a source of opposite sound waves so that the combined radiation into free air from the radiating surface and the open end is free from appreciable reduction in radiation at the undisclosed dip frequency. What the Examiner is doing is improperly using the claims being rejected as a blueprint or template for attempting to read the claim language on the prior art.

The alleged teaching is found, not in the references but in the claims being rejected. It is error to reconstruct the claimed invention from the prior art by using the rejected claim as a "blueprint." *Interconnect Planning Corp. v. Feil*, 227 U.S.P.Q. 543, 548 (Fed. Cir. 1985).

Here, the Examiner relied upon hindsight to arrive at the determination of obviousness. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. 15 This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention."16 *In re Fritch*, 23 U.S.P.Q. 2d 1780, 1784 (Fed. Cir. 1992).

We respectfully requested that if this ground of rejection were repeated, the Examiner quote verbatim the language in the reference corresponding to the source of opposing sound waves positioned in the acoustic wave guide so that the combined radiation into free air from the first radiating surface and the open end is free from appreciable reduction in radiation at the dip frequency. The Examiner did not and can not comply with this request.

FIG. 7 has nothing to do with FIG. 8. The reference states, "Referring to FIG.7, there is shown a graphical representation proportional to acoustical power output as a function of frequency with the embodiment of FIG. 1 having a front tube coupling the front of diaphragm 22 to lower opening 31." Col. 5, lines 15-19. The embodiment of FIG. 1 shows driver 22 intermediate the open ends 28 and 31.

"A reference is only good for what it clearly and definitely discloses." *In re Hughes*, 145 U.S.P.Q. 467, 471 (C.C.P.A. 1965); *In re Moreton*, 129 U.S.P.Q. 227, 230 (C.C.P.A. 1961).

Manifestly, the reference does not disclose the limitations of the rejected claims arranged as in the claims.

Accordingly, withdrawal of the rejection of claims 1, 2, 5, 6, 8, 10 and 11 as anticipated by the reference is respectfully requested. If this ground of rejection is repeated, the Examiner is respectfully requested to quote verbatim the language in the reference regarded as corresponding to each limitation in each rejected claim.

The office action states:

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bose as applied to claim 6 above in view of Edgar (US Patent 5,588,063).

Bose discloses a system as stated apropos of claim 6 above including a closed end (left end of waveguide). Bose does not disclose an acoustic port positioned between said first acoustic drive and said closed end of said acoustic waveguide. Edgar discloses a waveguide system including acoustic ports (Fig. 4, ports 52) in order to improve the directionality of the speaker system (Col. 5, lines 60-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include acoustic ports to improve the directionality of the speaker system as taught by Edgar. P.p. 5.

This ground of rejection is respectfully traversed. We rely on the authorities set forth on pages 11 and 12 of the response transmitted March 13, 2006.

Claim 7 is dependent upon and includes all of the limitations of claims 5 and 1. Since claims 1 and 5 are not anticipated by the primary reference for reasons set forth above, it is impossible to combine the primary and secondary references to meet the limitations of claim 7. That it is impossible to combine the references to meet the limitations of claim 7 is reason enough for withdrawing the rejection of it. Accordingly, withdraw of the rejection of claim 7 as unpatentable over the primary and secondary references is respectfully request. If this ground of rejection is repeated, the Examiner is respectfully requested to quote verbatim the language in the references regarding as corresponding to each limitation in claim 7 and quote verbatim the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the limitations of claim 7.

In view of the authorities identified above and the inability of the prior art, alone or in combination, to anticipate, suggest or make obvious the subject matter as a whole of the invention disclosed and claimed in this application, all the claims are submitted to be in a condition for allowance, and notice thereof is respectfully requested. If the Examiner believes the application is not in a condition for allowance, he is respectfully requested to telephone the

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undersigned attorney at 617-521-7014 to discuss what additional steps he believes are necessary to place the application in a condition for allowance.

Please apply any other charges or credits to deposit account 06-1050, order 02103-369001.

Respectfully submitted,  
FISH & RICHARDSON P.C.

12 February 2007  
Date: \_\_\_\_\_

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